Knowledge Mobilization in Korea: Linkages with Economic, Political and Social Development*

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The influence of research on educational policy within Korea is as much a history of economic, democratic and social development as it is about the interplay of policy and research. Korea has moved rapidly from the 1950s until today to develop an educational system which has become the backbone of social progress.

Today's researchers are only part of the picture of policy development. The impetus for policy development and change arises as much from an ongoing policy dialogue within the media and among the general public as it does from researchers per se. With a highly educated population which values educational achievement for a number of cultural, economic, political and social reasons, the nexus of policy formation is broad and horizontal throughout the country as much as it is vertical through research investigationl.

Many top universities now require that incoming professors already be well published in the field before they can be considered for a professor's position. Thus, many younger doctoral graduates spend years within research institutes or Ministries, building their

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resumes and networks before becoming professors within Colleges of Education. Indeed, nearly every professor involved in this particular pieces of research had held positions within the Ministry of Education and within a top university and, sometimes, within a national research institute. Sometimes, their influence in policy development took place while a professor, while seconded to the Ministry, or before becoming a professor. The interplay of research between the institution that develops the policy (often the Ministry of Education) and the researchers is as much a story of movement between research centers and the Ministry and among a network of professionals as it was formal collaboration for a specific piece of policy or research.

Educational Policy Context[1]

The question of knowledge mobilization usually arises from context in which research is supposed to influence policy. Within the Korean recent historical framework, however, research has been defined as much by the policy environment as the other way around. To understand this, it is convenient to examine three period of educational policy in the last 60 or so years. In each period, the role of research and researchers was generally quite different as was the policy environment for educational development.

[1] This section derived large from Interview with Chang Jae Lee and from Lee, Jung and Kim (2006) and Gwang-Jo, Kim (2001).

1948-1960. This period was not generally research driven. It focused on the reconstruction of school infrastructure and on implementing free compulsory primary education. The Japanese colonial period had been characterized by a high illiteracy rate (over 50 percent) and more than two thirds of the school infrastructure had been destroyed by the Korean War. By 1960, the enrollment rate of primary education was above 95 percent.

1961-1980. This period was marked by rapid expansion of education. Education opportunities at the secondary level were expanded and primary school conditions were improved. A series of five year economic development plans were implemented. During his period, the central government was the prime actor in developing, researching and implementing educational policy. Research ability at the Ministry of Education and within universities was still quite weak.

During this period, two important policies were implemented. In 1969, the exam which served to restrict middle school entrance was dropped effectively equalizing most middle schools. A lottery system was implemented instead. In 1974, a policy allowed municipalities to drop the high school entrance exam and replace it with a policy of equal high schools. This "High School Equalization Policy" remains in effect today and is discussed later in this report.

1981-2000. This period was marked by the push toward democratic institutions that guided educational research. The Constitutional Court stepped in to regulate educational inequities and spearheaded major education reform for a period. The Ministry of Education became the primary actor in developing policy and called heavily upon senior researchers at universities to shape the policies. Tertiary education expansion was emphasized along with qualitative improvements in basic schools. Brain Korea 21 was a primary policy instituted by

the Ministry during this period and aimed at increasing instructional and research quality among top research universities. Brain Korea 21 is discussed later in this paper. A series of Presidential commissions have often headed the educational reform efforts and much of this involved substantial empirical research.

2000-present. This period is characterized by a push to restructure education for a knowledge based society. Lifelong learning and human resource development have been major thrusts. The educational environment is increasingly competitive. Although the Ministry of education is the major instigator of educational policy, the highly educated population is now broadly engaged in educational debates, policy suggestions and discussion. Major educational policies, while often formed from primary research contracted by the Ministry, is often heavily debated through open public forums before it is implemented.

Research derives not just as a contract from the Ministry, but from a wide range of actors including independent researchers who critique and evaluate policies. The public is engaged in the debate and policy shapes derive as much from this debate as from empirical research findings. The Lifelong Education credit system was developed in this period and is discussed later in this paper.

University Research

There is a strong link between research and educational policy although typical direction of causation cannot be assumed. That is, educational policy is not always a product of educational research. Often, educational research is a product of educational policy. For example, two major higher educational initiatives, put in place at the Ministry and executive levels, have had a profound effect on research. One policy, which has been funded since

1999, involves the creation of a strong environment for producing world-class graduate students capable of high quality research. That project, Brain Korea 21 (BK21) has funded many students within Korea's top universities and linked their academic work with research competence. In this case, policy influenced the research environment and the development and evaluation of the policy involved substantial research. Although the project involves all disciplines, it certainly has provided the funding for many colleges of education to produce substantial research in Education. The Department of Education (and other education departments) at Seoul National University has funded nearly 60 graduate students each year to do research using this program. Often they assist their professors in producing policy-related work in Education.

Since 2008, the government has funded a new higher education program – World Class University program. The goal of this program is to fund top scholars from around the world to come to Korea's top universities to do research. It is another example of how policy actually influences research. In this case, educational policy influences research broadly but also influences educational research. Both projects have funded foreign professors, provided research funds to professors in the field of Education and elsewhere. Both have spurred substantial research before, during and after implementation.

In addition to these specific educational policies which influence educational research, there is a close association between professors, researchers and Ministry personnel. Frequently, they are one and the same. For example this research required the interview of two top scholars who had retired from the College of Education at Seoul National University. One had also served as Minister of Education, or as Deputy Prime Minister and both had headed major educational research institutes. During these periods of time, they were on

leave from Seoul National University. One colleague at Seoul National University who assisted in this research had just joined the university after many years at the Ministry of Education and two other professors on the advisory board for this research were also former Ministry officials. All continue to do research for the government. Thus, the linkage between researcher, Ministry officials and professors is very tight.

Colleges of Education

Most of the education policy research not undertaken directly by the government, derives from Korea's extensive network of universities. There are 45 universities with Colleges of Education. About a third are national universities and the other two thirds are private. Table 1 shows this distribution.

Table 1: Overview of Colleges of Education

		National	Private	Total
Number of undergraduates				
	< 1000	7	22	29
	1000-2000	5	9	14
	> 2000	2	0	2
Total		14	31	45
Year Established				
	1940s	4	1	5
	1950s	2	2	4
	1960s	3	9	12
	1970s	2	15	17
	1980s	1	2	3
	1990s	1	0	1
	2000s	1	2	3
Average Number of Faculty		83	40	
Average Fac/Stud ratio for UG		14	22	

National universities are generally older and larger than are private universities.

Both types produce substantial research although it should be noted that the research emanating from Colleges of Education may not always be related to the field of Education. Many faculty are employed to teach subject areas such as biology or mathematics. Students take many of their subject courses within the Colleges of Education. Thus, faculty hired to teach these subjects may well be publishing in subject areas other than education.

Table 2 shows the quantity of publications coming from both types of universities.

Table 2: Research publication quantity, 1998

	Publications						Books		
	Domestic			International			Writing		
	total number	range	average per faculty	total number	range	average per faculty	total number	range	average per faculty
National Universities	2914	49~423	2.4	761	15~210	0.6	595	10~67	0.5
Private Universities	3495	14~435	2.6	1613	2~202	1.2	825	3~200	0.6

The source study for this data divided results into various discipline categories. Education was included in the “Social Science” category so numbers reported are for a larger spectrum than just education. Nevertheless, the relative distribution should be fairly accurate.

The table shows that the typical faculty member produced about three to four articles per year. About a fourth of these are published in international journals. Professors from private universities publish about a third more than those in national universities. A professor appears to write a book about once every four years. The range is quite high with some universities out-producing others by a ten-to-one ratio.

Government is heavily involved in funding research as shown in Table 3. It funds about 28 percent of all research studies. But these research studies are well funded – comprising

two thirds of all research funds. Research funded by government comes in three primary forms with respect to policy research. Primary research is funded through government sponsored research foundations such as the Korean Research Foundation. This funding is competitive and professors apply on a regular funding cycle. Second, government funds research centers such as the Korean Education Development Institute. Although such institutes may receive funds directly from government or through research foundations, their overall administrative costs are covered by a regular government budget. Finally, government contracts directly with universities, professors and research institutes for specific, targeted research.

Table 3: Sources of university educational research funding, 1998

Source	No. of Research Studies	percent of total		Total 1998 USD (1000s)	percent of total		Avg. Funding per research (1998 USD)
Government support research	450	28%		20,247	66%		44,994
Local government support research	89	6%		3,778	12%		42,451
Private support research	69	4%		2,106	7%		30,524
Foreign support research	2	0%		77	0%		38,475
Self-support research	980	62%		4,520	15%		4,612
	1590	100%		30,729	100%		19,326

It is worth noting that the funding of research by government is only partly reflected in this rather traditional “sources of research funding” for individual projects. Many universities make graduate assistants available for their faculty, or provide incentives in the form of research supplements and bonuses in their paychecks. The central government also funds the BK21 project and World Class University Project which pays salaries, and pays for

student's education when students work with professors to produce published research. These policy-based incentives often drive research in ways not directly reflected in these tables.

Professional Societies and Journals

There are eleven professional societies in the field of education which also put out scholarly journals on a regular basis. These societies meet regularly, work collaborative on joint projects and meet collectively at an annual conference on educational research. Table 4 lists these organizations and their journals.

The Ministry of Education has placed a particular emphasis on the internationalization of higher education. Policies which provide incentives for teaching in English, admitting foreign students, linking with foreign institutions and publishing in English and top world journals are all funded. Many of the local journals are now including English language research articles and encouraging articles from outside of Korea. This is another example of

Table 4: Top Ten Domestic Journals in Education

Journal	Issues per year	Articles in 2009	Web site
The Journal of Korean Education	4	29	http://www.ekera.org/
The Journal of Education Administration	4	79	http://www.kssea.or.kr/
Korean Journal of Sociology Education	4	22	http://soe.or.kr/
The Journal of Educational Psychology	4	274	http://www.kepa.re.kr
The Journal of Educational Philosophy	3	44	http://www.pesk.kr/
The Journal of Anthropology of Education	2	18	http://www.kssae.or.kr/
The Journal of Educational Methodology	4	29	http://www.kaem.or.kr/
The Journal of Economics and Finance of Education	4	31	http://www.kosefe.org/
The Journal of Lifelong Education	4	40	http://www.kssle.net/
The Journal of Korean Society for History of Education	2	19	http://www.hisedu.net/
Korea Comparative Education Society	4	45	http://www.kces.org/

policy influencing research and follows a common pattern of funded policies providing incentives rather than the placement of hard standards.

The Policy Process – story of three policies

Following three educational policies from their ideas to their inception to their impact shows the very close association of research and policy in the field of Education. The connection is strongest through the people involved. Some people have worn all three hats at various stages and with various policies – policy maker, researcher, professor in a college of Education. The policies themselves sometimes influence research both directly and by establishing a research or policy environment. The policies reviewed here demonstrate three over-riding values expressed throughout the last half decade: (1) equity of educational opportunity, (2) a society which can and does learn continuously, and (3) economic growth through investment in education.

Lifelong Learning Credit System

Korea has a thriving Lifelong Learning community. It has just completed its fifth anniversary in 2010 (NILE, Summer 2010). There are currently 922 programs in 348 organizations representing 134 autonomous governments participating in this system. It has doubled the number of participating organizations since 2006.

In 1995, a system was developed whereby individuals can receive credit for lifetime learning achievements which can be used toward elementary, middle or high school degrees. It can also contribute to some university credits, a professional license, and provide the basis for certifying volunteers, employee applicants and local government activities. Various adult education programs can apply for accreditation under the program and their students can subsequently receive credit for their work.

The learner applies to have a comprehensive record made of lifetime achievements including academic background, professional qualifications, lifelong educational achievement and individual activities. This comprises their learning record. At the same time, local and private organizations can apply to have learning centers accredited through the system so that participation in such centers is applied to the learner and/or can be officially used as credit upon admission.

The credit bank system was first researched in a comprehensive study which looked at systems throughout the world and how they provided credit for adults to attain degrees. The Ministry of Education financed this study. The prime researcher was a university professor who was on leave to undertake this study. After the research, the team wrote a policy paper and proposal for the credit bank system. A Presidential Commission on Education Reform agreed with the findings and drafted a law which was submitted for legislation. The law passed and an agency was established to administer the program. The National Institute for Lifelong Education has recently separated from its former institutional home, Korean Education Development Institute and is now home to the Credit bank system.

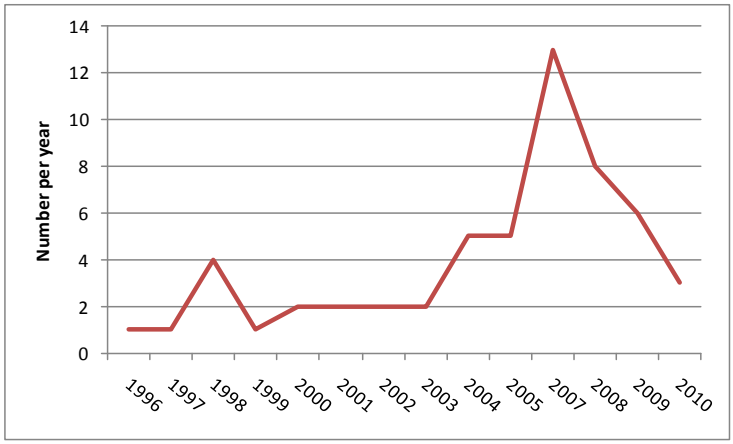
Table 5 shows that considerable research has been done on this policy through the years. The research derives from a wide range of universities and institutes. The Korean Institute for Educational Development produced five of these pieces of research. Publication occurred in a wide range of journals but the Korean Journal of Dental Hygiene produce three – more than other journals.

Table 5: Research sources for Credit Bank System

Theses and Dissertations	28
Local journal publications	27
International journal publications	
Total number of authors represented	34
Total number of universities represented	19
Total number of journals represented	24

Figure 1 shows that research has grown in recent years on this topic. Previous to 2005, about 2-3 pieces of research were done each year. Recent years have produced between five and 13 pieces each year.

Figure 1: Published research count for Credit Bank System Policy, 1996-2010



Brain Korea 21

Brain Korea 21 is a government funded project aimed at developing world-class research-oriented universities. It was initiated in 1999 to produce global leaders who will help promote national competitiveness in the future. It completed its first seven year period in 2005. In 2014, it will complete its second phase. In phase I, over 1.1 billion USD was

committed to the program (Ministry of Education, 2007). It supported 564 centers and supported 90,000 students and researchers. During this period, published research in international and in local Korean journals both tripled.

The project began at the instigation of the Minister of Education for the country. He wanted to develop a project that would assist in raising the quality of research capability of graduates from major research centers – largely at universities throughout the country. He felt that the time was right for Korea to have this as a goal and he felt he could garner financial support if he had the right plan. He began by forming a task force within the Ministry to oversee the project. This task force reported to him weekly on their progress during this development phase.

This advisory committee built a research team. They began with a list of possible scholars who might be included in the research including foreign researchers. From this master list, a research team was selected. Researchers included Ministry officials, professors, foreign researchers and local researchers. The goal of the research team was to conduct empirical research on an effective design for a policy. The goal was not to support a policy per se, but rather to do empirical research to identify an effective policy design.

This development period lasted six months. Once it was completed, the proposed project was put out for public comment. Researchers attended hearings to explain their recommendations. One issue raised during these hearings was that the funding would not be equitable. It would go to the major research universities. Some people felt that the same money ought to be spread equally across all universities in order to improve research throughout the entire system. As a result of the public hearings, some small details were changed, but the primary thrust remained unchanged.

The next phase was a budget phase. A proposed budget was drawn up at the Ministry of Education and sent to the National Assembly. It was approved and implemented. Later, Rand Corporation from the United States was paid to do a major assessment of the project's outcomes and failures and successes. As a result of this evaluation, the project was funded for a second phase (CITE RAND STUDY).

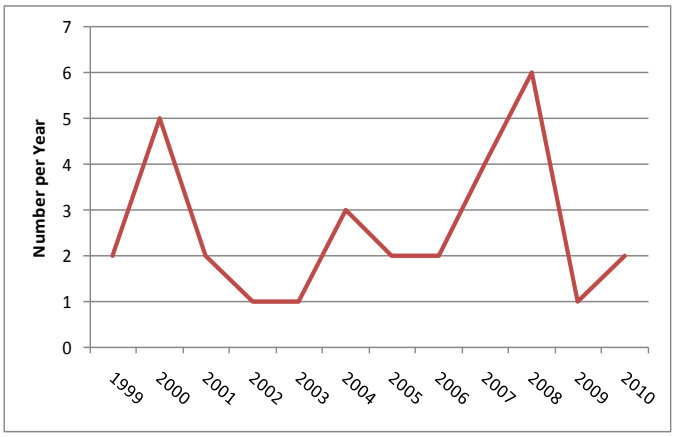
Table 6 shows that the policy has received research attention. About 12 local journals have published something on this policy with an average of two publications each. Local journals of *Educational Administration* and *Politics of Education* have published the most articles in this area (6 and 5 respectively). Most authors were from Younam (7) and Yousei (5) universities.

Table 6: Research sources for BK21 policy

Theses and Dissertations	7
Local journal publications	24
International journal publications	
Total number of authors represented	25
Total number of universities represented	22
Total number of journals represented	12

Figure 2 shows that the policy has been sporadically researched through the years.

Figure 2: Research trend for BK21 policy



High School Equalization Policy

In 1974, the government introduced a policy meant to equalize high schools. The policy went into effect, initially, in the two main cities – Seoul and Busan. The policy was in response to the pressure being put on sixth and ninth grade students to pass an exam which could determine their high school. High schools were, thus, differentiated by the levels of students who were admitted according to test scores. Since high school quality largely determined the probability to be admitted to a top university and since such admissions could determine the quality of employment throughout one's adult life, testing well had large consequences. The pressure on adolescents was deemed to be too much. The new policy made assignment to high school on the basis of location. Also, every 4-5 years, teachers are rotated to ensure a more even distribution of teacher quality.

Private schools are included in the policy. Today, about three fourths of all children live in districts which have adopted this high school equalization policy. To partly compensate for this equalizing effect of high schools, the government has also provided for some special purpose high schools which are designed to provide education in a specialized area for

student who have specific talents such as foreign languages, science and arts. The policy is quite controversial but has remained intact for more than 30 years. It has reduced the competition for high school entrance and also eliminated the ranking system of high schools which was previously determined through scores on the entrance exam.

The policy was first contemplated due to pressure from parents. They felt that the competition in the high school entrance exam was having a negative effect on their children's physical and mental health. About three fourths of parents felt something had to change. Prestigious schools argued to retain the high school entrance policy. Due to parental pressures, several provinces began to lobby the national government for a policy that would satisfy parents and reduce the pressure on adolescents. The high school equalization policy was proposed and was optional – provinces could elect to institute the policy or not.

Much of the current research examines the effect of the policy. Some research attempts to show that the policy is disadvantaging the best students in Korea who are held back by lower-performing peers in their classrooms (Lee, 2004). There is some evidence that this may not be the case as Korea's high school student continue to rank among the highest in international tests (OECD, 2010) and, according to OECD, lose very few points due to systemic inequality. Despite rather constant pressure from some parties to revisit the policy, provinces retain the policy due to parental pressure. The central government is gradually giving schools more autonomy and allowing private schools to deviate from common resource allotments. This is decreasing the equalization of high schools over time.

The policy was not researched before it was adopted, but it has received considerable

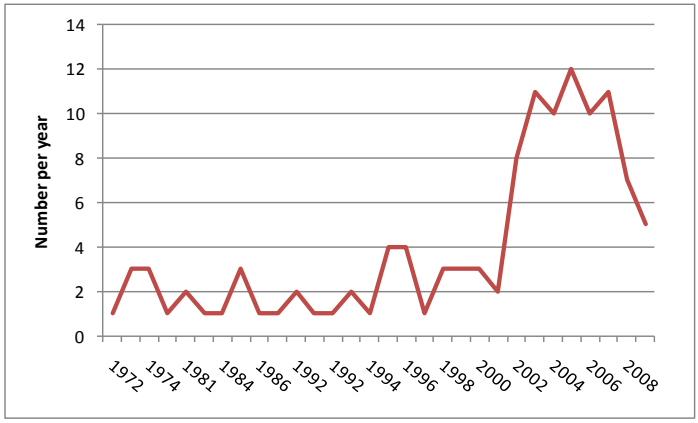
Table 7: Research sources for High School Equalization

Theses and dissertations	60
Local journal publications	58
International journal publications	
Total number of authors represented	51
Total number of universities represented	35
Total number of journals represented	24

attention since that time. Table 7 shows the research published plus theses on this policy. The policy has been research broadly across many authors, journals and universities. Ten of these publications were in the Korean Journal of Sociology of Education. The Korea Education Development Institute produced the most publications (8) with Ehwa Women's University, Catholic University and Seoul National University produce five or six each over this period. Ewha Women's University produced the most theses and dissertations on the topic.

Figure 3 shows that this policy is still well researched. In recent years, 10-12

Figure 3: Research trend for High School Equalization



publications are appearing annually on the topic.

The Educational Research Institutes

The government has three primary ways of funding research. First, it provides funding to government research foundations that issue grants for individual proposals based on national competition. Second, it funds large programs which provide research support or incentives to build research capacity within universities. Third, it provides the base funding for several national research institutes within the broad field of education.

There are five major think tanks, or research institutes which are funded by government, have particular purposes and conduct considerable research. They are (1) Korea Institute for Curriculum and Evaluation, (2) National Institute for Lifelong Education, (3) Korea Education Development Institute, (4) Korea Education Research Information Service and (4) Korea Research Institute for Vocational Education and Technical. Each is described below. Table 8 shows the funding of these institutes. KICE administers the competitive national test for university admissions which is why its budget is so high.

Table 8: Research Institute Funding, 2009

2009 US dollars	KICE	KEDI	KERIS	KRIVET	Total
government contribution	12,464,167	11,200,000	24,984,167	13,064,167	61,712,500
institution income	54,497,500	18,516,667	1,500,000	14,359,167	88,873,333
contract business	0	0	27,128,333	0	27,128,333
total	66,961,667	29,716,667	53,612,500	27,423,333	177,714,167
% of institutional budget					
government contribution	19%	38%	47%	48%	35%
institution income	81%	62%	3%	52%	50%
contract business	0%	0%	51%	0%	15%
total	100%	100%	100%	100%	100%
share among institutions					
government contribution	20%	18%	40%	21%	100%
institution income	61%	21%	2%	16%	100%
contract business	0%	0%	100%	0%	100%
total	38%	17%	30%	15%	100%

National Institute of Lifelong Education

The National Institute for Lifelong Education (NILE) emerged out of KEDI to becomes a separate institution in 2008. NILE integrated the three major lifelong education functions that had been in operation; first, the Lifelong Education Center, which had been administered under the Korean Educational Development Institute since 2000; second, the Academic Credit Bank Center established under the Korean Educational Development Institute in March 1998; and third, the Department of Bachelor's Degree examination for Self-Education. The Institute is beginning to tackle issues of literacy education and lifelong learning cities.

Korea Education Research Information Service

Since establishing KERIS in 1999, it has been responsible for Korea's educational Information & Communication Technology (ICT) development. Over the past ten years, KERIS has striven to improve public education, raise national competitive power through ICT in higher education and learning, developed a national education information system, and build on global initiatives in e-learning. At the same time, in order to build strength for a statistics and research oriented approach, KERIS focuses on the unification of scattered information.

Korean Educational Development Institute

Since its inception in 1972, Korean Educational Development Institute (KEDI) has been Korean's primary education think tank. KEDI conducts scientific analysis and develops policy measures on Korea's current educational issues such as lowering the expenditure of private tutoring, improving the achievement level of students, increasing autonomy in schools, and enhancing the quality of university. It also helps in the development of innovative educational structures targeted at cultivating skills and competencies required for the future.

Korea Institute for Curriculum and Evaluation

Korea Institute for Curriculum and Evaluation (KICE) was established in 1998. The research carried out by KICE has covered not only the national curriculum and educational evaluation but also the improvement of teaching and learning methods, development and authorization of textbooks and the implementation of national-level educational tests. KICE maintains close links with the government, academic circles and teachers and students through public meetings and seminars concerned with the dissemination of research findings in the context of educational policies. Many research staff members are also

engaged actively in policy development and participate in international collaborative research projects.

Korea Research Institute for Vocational Education and Training

The Korea Research Institute for Vocational Education and Training (KRIVET) was established in 1997 and conducts research on technical and vocational education and training and human resources development (HRD). It supports and develops government policies for the purpose of developing the vocational capacity through Technical and Vocational Education and Training as part of an overall lifelong learning strategy. Since its foundation, KRIVET has conducted research on national HRD and the establishment of information system for vocational education and training; evaluation of vocational training institutions and programs qualification systems the accreditation of private qualifications; occupations; and the provision of career guidance.

Conclusion

The educational research commitment in Korea is large. University based research is growing but serves as only one piece of extensive educational research which informs policy. The strong linkage between educational policy and educational research derives not from their causality, but from the belief that education is both a means of improving materially, but also a means of bettering Korean society beyond the economic gains. Education, in this view, is not sought as a separate goal nor is it viewed as an autonomous sector. Rather, policies reflect the firm integration throughout society's framework.

Thus, educational research does not so much inform educational policy as it measures the contribution or success of education in achieving larger social goals. In the last two decades, part of this vision is that of productivity driven by world-class industry,

innovation and creativity. The emphasis on top research and on internationalizing education is a means toward this end – to raise the quality of research and the variety of perspectives. But the vision of society neither begins nor ends with industry. A strong push to incorporate educational opportunities for all citizens, in all walks of life, throughout their private, social and economic life is demonstrated by the newly formed National Institute for Lifelong Education.

These goals continue to incorporate a value of equality for all citizens. Educational achievement is high and among the most equal in industrialized countries. Educational policy continues to support this goal and a renewed emphasis on closing achievement gaps.

The strongest link between educational policy and research are its scholars. Top researchers are employed in universities, research institutes and the Ministry of Education. Many begin employment in one location and move to another. Many take time away from the university to conduct a special piece of research for an institute or to work on an evaluation for the Ministry. Individuals can wear all three hats at once and link with others who are likewise switching roles.

Funding is also integrated throughout. Government provides the usual funding for universities and funding of research institutes such as the Korea Foundation for Research which disperses research funds. But it also funds programs which provide incentives or creates environmental changes which spur research directly or indirectly. Students funded under the program must produce research with their professors. Professors, in turn, gain research assistants who are funded through their efforts.

It is fair to say that the environment is designed to reinforce the linkage among government policy, research, education, and social well-being. The system is not without its

problems, controversies or even the occasional failure. But the overall attempt to integrate these elements is central to the philosophy. The challenge is to find the right balance through the proper integration.

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Appendix I: Colleges of Education

	Name	Year Established	Undergrad students	Faculty Count
National				
1	Kyungpook	1946	1200	100
2	Andong	1947	680	34
3	Kongju	1948	2259	126
4	Seoul	1949	1272	102
5	Jeju	1952	588	52
6	Gyeongsang	1956	1361	97
7	Chonnam	1961	1361	85
8	Kangwon	1969	960	67
9	Pusan	1969	1360	122
10	Chonbuk	1971	860	78
11	Chungbuk	1977	940	67
12	KNUE	1985	2269	162
13	Sunchon	1991	525	47
14	Chungnam	2009	720	26
subtotal			*16,355*	*1,165*
Private				
15	Chungang	1946	700	34
16	Ewha	1951	1874	96
17	Daegu	1956	1950	86
18	Chosun	1965	1220	64
19	Sangmyung	1965	960	39
20	Sungshin	1965	600	22
21	Hanyang	1966	542	30
22	Dongguk	1968	1000	42
23	Foreign Studie	1968	480	24
24	Kangnam	1969	440	19
25	Kyungnam	1969	1840	72
26	Mokwon	1969	760	36
27	Kwandong	1970	970	33
28	Chongju	1971	760	30
29	Jeonju	1971	780	31
30	Silla	1971	880	50
31	Wonkwang	1971	1280	53

Appendix B: Education Research Institutes within Colleges of Education and Teacher's Colleges

University Research Centers	
Andong	Research institute of science education
Chonbuk	Research institute of scientific education
	Research institute of social education
Chonnam	Research institute of educational issues
	Research institute of religious culture
	Research institute of scientific education
	Research institute of sports science
Chosun	Research institute of curriculum instruction
Chungang	Research institute of English education
	Research institute of education and welfare for young children
Chungbuk	Research institute of educational development
Chungnam	Research institute of education
Dongguk	Education research institute
	Foreign exchange research institute
Ewha	Arts education treatment research institute
	Educational research institute
	Research institute of curriculum instruction
	The special education research institute

Foreign studies	Research institute of foreign language education
Hannam	Research institute of education
Hanyang	Research institute of Korean educational issues
Hongik	Research institute of education
Inha	Education research institute
Jeju	Research institute of educational science
	Research institute of elementary education
Jeonju	Research institute of elementary education
Kangwon	Education research institute
	Kangwon culture research institute
	Science education research institute
Kongju	Research center of Korean rural area education
	Research institute of education
	Research institute of science education
	Research institute of special education
Konkuk	Education research institute
Korea	Creative information education research institute
	Curriculum instruction research institute
	East Asia culture exchange research institute
	Educational issue institute
	Human living environment research institute
	Sports science institute

	Korea immigrant research institute
Kyungpook	Science education research institute
	Secondary education research institute
Pusan	Science education research institute
Sangmyung	Humanities research institute
	Student life research institute
Seowon	Education research institute
	Future innovation research institute
	Jik-ji culture industry research institute
	Korea educational materials research institute
	Unification education research institute
Silla	Educational science institute
Seoul National	Foreign language education research institute
	Lifelong education research center
	Multi-culture education research center
	Science education research institute
	Science-gifted education research center
	Social studies education research institute
	Special education research institute
Sunchon	Science education research institute
Sungkyunkwan	Education research institute
	Private education policy research institute

	Sungshin	Educational issue research institute
Teacher Colleges		
	Busan	Research institute of education
		Research institute of student life
	Cheongju	Research institute of elementary education
		Research institute of science education
		Research institute of student life
	Chinju	Research institute of elementary education
	Chuncheon	Education center for innovation elites
		Education center for scientific elites
		Life sports center for the disable
		Research center for cultivation equality
		Research institute of elementary education
		Research institute of environment education
		Research institute of Korean music education
		Research institute of literature education for children
		Research institute of multi-cultural education
		Research institute of philosophy education for children
		Research institute of science education
		Research institute of social and humanity education
		Research institute of sports and arts education

	Unification education center
Daegu	Research institute of elementary education
	Research institute of science education
Education	Research institute of basic science education
	Research institute of elementary education
	Research institute of Korean education
	Research institute of multi-culture education
	Research institute of Seoul education
Gongju	Research institute of elementary education
	Research institute of peace education
	Research institute of science education
	Special education canter
Gwangju	Research institute of autonomy
	Research institute of elementary education
	Research institute of multi-culture
	Research institute of student life
Jeonju	Research institute of elementary education
Kyeongin	Education consulting center
	Mentoring center
	Research institute of future talents
	Research institute of holistic homeschooling
	Research institute of learning, emotion and behavior

	Research institute of citizen education
	Research institute of arts education
	Research institute of existent culture
	Research institute of foreign language education
	Research institute of future economy education
	Research institute of information science elites
	Research institute of Korean culture
	Research institute of Korean environment education
	Research institute of math elites
	Research institute of multi-cultural education
	Research institute of science education
	Research institute of science elites
National Education	Research institute of educational science
	Research institute of natural science
	Research institute of social and humanity education
	Research institute of sports and arts education